**Grade 11 Essential Mathematics**

More **concrete** topics. Consumer applications (financial decisions and managing money), problem solving, decision making, and spatial sense

-Real world Math – everyone needs that skill

-Math meant for trades.

* interest and credit,
* managing money,
* surface area and volume
* graphing
* relations and patterns,
* trigonometry.

**Most work is done in class** with guidance from teachers.

**Grade 11 Pre-Calculus**   
-More abstract topics

-standard **university stream, traditional** Math needed to take Calculus and related courses in University,

-**high level theoretical Mathematical skills** further developed with an emphasis on problem solving and mental math. **Theory developed first and then applied to solve problems**.

* sequences and series,
* quadratics equations,
* radicals,
* trigonometry
* systems of equations.

Skills learned in earlier grades are **essential to success** with these new topics.

**Demanding and fast-paced course. Regular practice and homework is essential. Students can expect homework each night, with limited class time to complete assignments.**

**Minimum 70% in precal 10 recommended.**

**Grade 11 Applied Mathematics**

-**calculator/computer based**

-**application** of theory studied in precal (problem solving)

-context driven and promotes numerical and geometrical **problem-solving** techniques as they relate to the world around us.

-develop critical-thinking skills through **problem solving** and the mathematical **modeling of real-world situations** in order to **make predictions.**

-engineering, architecture, science.. consider taking this AND precal

-**NOT** accepted as pre-requisite if wanting to take **calculus** in university (intended for students considering post-secondary studies that do not require calculus)

* measurement,
* geometry,
* proofs of properties,
* statistics and functions

- Progress is made through consistent effort and practice. **Regular homework** is expected. Seeking help when unsure of concepts is essential.

**Grade 11 Pre-Calculus** (precal 10 is prerequisite)  
-More abstract topics

-standard university stream Math

-needed to take Calculus in University

-high level theoretical Mathematical skills further developed with an emphasis on problem solving and mental math

* sequences and series, ●quadratics equations,
* radicals, ●trigonometry
* systems of equations.

Skills learned in earlier grades are **essential to success** with these new topics.

**Regular practice and homework is essential.**

**Minimum 70% in precal 10 recommended.**

**Grade 11 Applied Mathematics** (precal is prerequisite)

-calculator/computer based

-application of theory studied in precal (problem solving)

-numerical and geometrical problem-solving techniques as they relate to the world around us.

develop critical-thinking skills through **problem solving** and the mathematical **modeling of real-world situations** in order to **make predictions.**

-engineering, architecture, science.. consider taking this AND precal

-NOT accepted as pre-requisite if wanting to take calculus in university (intended for students considering post-secondary studies that do not require calculus)

* measurement, ●geometry,
* proofs of properties, ●statistics and functions

**Regular homework** is expected.

**Grade 11 Essential Mathematics**

More concrete topics. Consumer applications, problem solving, decision making, and spatial sense

-Real world Math – everyone needs that skill

-Math meant for trades.

* interest and credit, ●managing money,
* surface area and volume
* graphing ●relations and patterns,
* trigonometry.

**Most work is done in class** with guidance from teachers.

Sorry to already be sending another Math email!  I've had parents and students asking about the Math course choices for grade 11.  I don't know if this will help, but attached is a small summary of the difference between the three courses offered.

The course your young person is taking is Introduction to Applied and Precalculus Mathematics (IAPR) This is the prerequisite for the grade 11 Precal and for the grade 11 Applied course.  There is no prerequisite for grade 11 Essentials.  And so when your child receives the grade 10 IAPR credit, he or she can choose any of those three courses in grade 11.

None of the courses are easy, although Essentials is generally quite a bit less work as generally the work can be completed in class time (as long as the student uses their times in class).  They are just all different maths for different purposes.

Students must take a minimum of one grade 11 Math course, but students can also take 2 or 3 grade 11 Math credits is desired.  Each program is sequential, and designed to meet different interests, learning needs and educational/career goals of students.  All three math programs allow admission to University and/or College study, but Essentials Math does not allow registration in some faculties and may also limit University scholarships.   Consult with our career intern in guidance and/or university/college websites for specifics.

Students may select a second mathematics credit to provide reinforcement for the course course (ie taking Precalculus and Applied), or if Mathematics is an area of high interest.  Taking Essentials as a second course allows students to also cover practical Math topics everyone needs including financial decisions and managing money (loans, "don't pay a cent" contracts, credit and credit cards, budgeting, saving,  RRSPs and TFSAs,  financial institutions, managing money, etc.)

Please see the attached for more information.  Students could also speak with teachers who teach those specific courses and/or can speak to me for further advice.  I don't know your young person that well yet, but I can try to help.  Students can choose the course based on their future requirements, their interests, and the oustide of class amount of work they are committed to (and have time to) put into the course.

As you know, we are asking students this year to register online by the end of February and then to  print out and bring in the signed papers.  We suggest they use the PowerPoint or information page on our website while they are completing the registration process.